

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF NEW JERSEY

JOHN THOMAS and KAREN THOMAS,

Plaintiffs,

v.

CMI TEREX CORPORATION,

Defendant.

HON. JEROME B. SIMANDLE

Civil No. 07-3597 (JBS/KMW)

OPINION

APPEARANCES:

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SIMANDLE, District Judge:

I. INTRODUCTION

Plaintiffs, John Thomas and his wife, Karen Thomas, have brought suit following an accident involving a PR-800-7 Cold Planer ("PR-800-7"), an asphalt milling machine, that allegedly left Mr. Thomas severely injured. Plaintiffs allege that the milling machine, designed and manufactured by Defendant CMI Terex Corporation, had a design defect that required Mr. Thomas to remain close to the machine's batteries while he attempted to

recharge them.¹ Plaintiffs also allege that Mrs. Thomas is entitled to damages for loss of consortium due to Mr. Thomas' accident.

Presently before this Court are five motions. Plaintiffs have moved in limine to preclude the testimony of Defendant's proposed technical expert Randall Bills [Docket Item 27] and for partial summary judgment against Defendant on the issue of a reasonable safer design [Docket Item 28]. Defendant has submitted two motions in limine to preclude Plaintiffs' proposed technical expert George "Ted" Page [Docket Item 33] and medical expert Dr. James Hewitt [Docket Item 49]. Defendant further moves for summary judgment against Plaintiffs [Docket Item 34].

For the reasons set forth below, the Court will deny Defendant's motion to preclude the expert testimony of Mr. Page, but grant in part its motion to preclude the expert testimony of Dr. Hewitt. The Court will likewise deny Plaintiffs' motion to preclude Mr. Bills' testimony. Finally, the Court will deny both motions for summary judgment, except to the extent that Plaintiffs have voluntarily withdrawn their failure-to-warn claim.

¹ Plaintiffs also alleged, but have subsequently voluntarily dismissed, a failure-to-warn claim.

II. BACKGROUND

A. Facts

On the morning of August 2, 2005, Plaintiff John Thomas, at that time a mechanic for Statewide Hi-Way Safety Company, was called to Hammonton, New Jersey, because the PR 800-7 milling machine at Hammonton High School would not start. (John Thomas Dep. May 14, 2008 at 26, 50). Mr. Thomas was familiar with the PR 800-7. The previous week Statewide had similarly sent Mr. Thomas to work on the same milling machine and he had started it, fueled it, greased it, and replaced its cutting teeth. (Id. at 52-53.) Mr. Thomas had also read the operation and maintenance manual for the machine. (Id. at 28-29.)

The PR 800-7 has an operation and maintenance manual that outlines the method for "boosting" the milling machine's batteries. (Operation Manual at 6-7.) The instructions begin with a list of warnings:

Batteries give off flammable fumes that can explode.

Prevent sparks near the batteries. They could cause vapors to explode. Do not allow jumper cable ends to contact each other or the machine.

Do not smoke when checking battery electrolyte levels.

Electrolyte is an acid and can cause personal injury if it contacts skin or eyes.

Always wear eye protection when starting a machine with jumper cables.

Improper jump procedures can cause an explosion resulting in personal injury.

Always connect battery positive (+) to battery positive (+) and battery negative (-) to machine frame.

Jump only with a battery source and with the same voltage as the stalled machine.

Turn off all lights and accessories on the stalled machine. Otherwise, they will operate when the jump source is connected.

(Id. at 6.)

After turning off the stalled machine and the boosting machine, a mechanic is instructed to connect the positive jumper cable to the positive cable terminal of the discharged battery set of the stalled machine, while the other end is connected to the positive terminal of the boost battery set. (Id. at 7.) The negative jumper cable must be connected to the negative boost battery terminal and then to the frame of the stalled machine away from the battery. (Id.) In the PR 800-7, the positive cable terminal is attached to battery. (Id.) The instructions then provide for a period to charge the batteries and then direct the mechanic to attempt to start the milling machine. (Id.) If, after several failed attempts, the machine does not start, the instructions tell the mechanics to "[t]roubleshoot to find the reason the engine would not crank." (Id.) The instructions do not warn of any danger to remaining in the milling machine or next to the batteries while charging nor do they instruct the

mechanic to leave the battery compartment while charging.

(Id. at 6-7.)

On arriving at the high school, Mr. Thomas worked to recharge the batteries on the milling machine. The PR 800-7 was powered by two 12-volt lead-acid batteries located in two compartments under the floor of the machine's engine compartment, covered by two removable plates. (John Thomas Dep. May 14, 2008 at 75-76.) Mr. Thomas began his work by visually inspecting the batteries and measuring their voltage. (Page Report at 10-11.) He then charged each battery in turn, by attaching charging cables from his truck and letting it charge for ten to fifteen minutes. (Id. at 11.) The milling machine still would not start, so Mr. Thomas used a recharging machine, called the Start-All. (Id.) Mr. Thomas continued to be unable to start the milling machine. (Id.)

Having unsuccessfully attempted to start the milling machine, Mr. Thomas eventually became concerned that he did not have a good connection. (John Thomas Dep. May 14, 2008 at 131-32.) He wiggled the positive cable clamp attached to the charging terminal (and not the battery) and then wiggled the negative cable clamp with his right hand, all while the Start-All was running. (Id. at 132-33.) At this point he saw a "pretty good-sized spark," followed by a flash, and as he tried to get off his hands and knees, a piece of something came flying at him.

(Id. at 133.) Mr. Thomas believes he was hit by a piece of the battery, injuring his wrist, and then he felt a force that propelled him backward, causing him to hit some portion of the milling machine. (Id. at 133-34, 146-47.) Mr. Thomas also remembers hitting his head on something. (Id. at 135-38.) Mr. Thomas did not wear protective goggles while working on the PR 800-7 batteries, despite having seen warnings on batteries about wearing eye protection while working with batteries. (Id. at 81-83.)

B. Proposed Expert Reports

1. Plaintiffs' Engineering Expert: George "Ted" Page

Plaintiffs propose to offer the testimony of George "Ted" Page, an electrical engineer. Mr. Page has prepared a report that opines that the PR 800-7 is defectively designed because it requires a mechanic who is boosting the batteries to come dangerously close to those batteries, in a confined space. (Page Report at 16-33.) Mr. Page proposes a safer alternative design that would place the battery recharging terminals "outside the machine's engine compartment, with heavy steel panels between the mechanic and the battery compartment." (Id. at 20, 33-39.) This alternative design, according to Mr. Page, is used by the Case 465 Skid Steer Series 3 mini front-loader and is affordable. (Id. at 33-39.) Mr. Page finally concludes that the defect in design caused Mr. Thomas' injuries and could have been prevented

by Mr. Page's safer alternative design. (Id. at 39-40.)

Mr. Page bases his opinions on what he describes as recognized standards for risk and hazard assessment, his experience, and review of various depositions prepared for this case.

2. Plaintiffs' Medical Expert: Dr. James Hewitt

Dr. James Hewitt, Mr. Thomas' treating psychiatrist since September 19, 2005, is Plaintiffs' proposed medical expert. Dr. Hewitt has diagnosed Mr. Thomas with cognitive disorder and mood disorder secondary to a head injury, as well as anxiety disorder (not otherwise specified) and post traumatic stress disorder (in remission). (Hewitt Report at 16.) Dr. Hewitt opines that Mr. Thomas received his head injury as a result of the August 2, 2005 accident. (Id. at 1.) Dr. Hewitt bases his opinions on his 37 clinical evaluations of Mr. Thomas, the Diagnostic and Statistical Manual of Mental Disorders ("DSM") IV, his treatment of other individuals with traumatic brain injuries, his review of literature on the subject as well as medical records relating to Mr. Thomas, and his training, education and experience. (Id. at 6, 18.)

In addition, during his deposition, Dr. Hewitt testified that Mr. Thomas suffers from specific brain injuries to several parts of his brain. (Hewitt Dep. at 66.) Dr. Hewitt further opined that this organic brain injury was caused by the force of

the explosion leading to a "jostling of the brain" called a "contracoup." (Id. at 74-76.)

3. Defendant's Engineering Expert: Randall Bills

Defendant offers the expert engineering testimony of Randall E. Bills for the sole purpose of establishing the cause of the battery explosion and not to establish the cause of Mr. Thomas' injuries. Mr. Bills, as Senior Technical Consultant to SEA, Ltd., prepared a report in which he opines that, based on deposition testimony and his examination of the machine at issue, there was no malfunction in the milling machine that caused or contributed to the battery explosion, that no defect in the battery system caused the explosion, that had Mr. Thomas followed the procedures in the Operations Manual, or heeded its warnings, the accident would have been prevented, and that Mr. Thomas' actions caused the battery explosion to occur. (Bills Report at 1.) Mr. Page opines in his report that Mr. Thomas caused the batteries to explode by moving the negative clamp and that his failure to follow the procedure and warnings in Operations Manual (to keep sparks from the batteries) caused the explosion. (Id. at 7, 17.) Mr. Bills concludes his report: "The design of the battery compartment and battery cables was not defective and did not cause this explosion to occur." (Id. at 17.)

At a Daubert hearing held on September 9, 2009, Mr. Bills further elucidated both his methodology, the bases for his

opinions, and his extensive experience in the field of electrical engineering in general and battery explosions in particular. Mr. Bills explained that he came to his ultimate conclusion that Mr. Thomas's conduct was the sole cause of the battery explosion by applying the scientific method outlined in National Fire Protection Association ("NFPA") 921: Guide for Fire & Explosion Investigations (a recognized guide prepared by a committee of which Mr. Bills is a member) and systematically eliminating other possible causes. To do so, Mr. Bills examined the PR 800-7 in question and reviewed various documents including depositions for the present action, engineering drawings, operation and service manuals for various machines, expert reports and medical records. (Bills Report at 2-3.)

B. Procedural History

On August 1, 2007, Plaintiffs filed their complaint alleging strict liability for a design defect, failure to warn, and loss of consortium on behalf of Plaintiff Karen Thomas. Following completion of discovery, Plaintiffs filed their motion in limine to preclude the testimony of Defendant's proposed technical expert Randall Bills and moved for partial summary judgment against Defendant on the issue of a reasonable safer design. Defendant then submitted two motions in limine to preclude Plaintiffs' proposed technical expert George "Ted" Page and medical expert Dr. James Hewitt. Defendant further moved for

summary judgment against Plaintiffs.

On September 9, 2009, the Court held a Daubert hearing solely on the motion to preclude the testimony of Mr. Bills, after observing that unlike the other proposed experts, the Court did not have the benefit of Mr. Bills' deposition. Following Mr. Bills' testimony, the Court heard oral argument on all five motions and reserved decision.

III. DISCUSSION

A. Products Liability Law

These motions arise under New Jersey law² in the context of a strict liability claim for design defect. A brief review of the elements of this claim is warranted.

To establish a strict liability claim for design defect, Plaintiffs must satisfy the following elements:

(1) the product was defective; (2) the defect existed when the product left the hands of the defendant; and (3) the defect caused the injury to a reasonably foreseeable user.

Jurado v. Western Gear Works, 619 A.2d 1312, 1317 (N.J. 1993).

And in addition, in a design defect case, "plaintiff must show specifically that the product is not reasonably fit, suitable and

² Both parties assume, and the Court agrees, that New Jersey law should govern this diversity action, even assuming there is a conflict between Delaware and New Jersey law, because New Jersey has the most significant interest in this action where the alleged tort and the resulting injury both occurred in New Jersey by Delaware defendants against a New Jersey plaintiff. See P.V. ex rel. T.V. v. Camp Jaycee, 962 A.2d 453 (N.J. 2008).

safe for its intended or reasonably foreseeable purposes.” Id.

B. Motions to Preclude Expert Testimony

The Court will begin with the evidentiary motions, as they impact the outcome of both motions for summary judgment. The admissibility of expert witness testimony is governed by Rule 702, Fed. R. Evid., and the Supreme Court’s decision in Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993) and its progeny. Rule 702 provides as follows:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witness has applied the principles and methods reliably to the facts of the case.

Fed. R. Evid. 702. As the Supreme Court explained in Daubert, district court judges perform a “gatekeeping role,” 509 U.S. at 596, by assessing whether expert testimony is both relevant and methodologically reliable in order to determine whether it is admissible under Rule 702. Id. at 590-91; see also Kumho Tire Co., Ltd. v. Carmichael, 526 U.S. 137, 146-47 (1999) (holding that Daubert extends to testimony about “technical or other specialized knowledge”) (internal quotations and citations omitted).

Under the law of this Circuit, Daubert and Rule 702 call upon the Court to examine the admissibility of expert testimony

in light of three factors: the qualifications of the expert, the reliability of his or her methodology and the application of that methodology, and whether the testimony fits the matters at issue in the case. In re Paoli R.R. Yard PCB Litig., 35 F.3d 717, 741-43 (3d Cir. 1994). With regard to the qualifications prong, the Court of Appeals has explained that an expert's qualifications should be assessed "liberally," recognizing that "a broad range of knowledge, skills, and training qualify an expert as such." Id. at 741 (also noting that "[w]e have eschewed imposing overly rigorous requirements of expertise and have been satisfied with more generalized qualifications").

In addition to being qualified to testify in an expert capacity, an expert witness whose testimony is offered by a party must base her opinions on reliable methodology. The Court of Appeals explained in Paoli that

Daubert explains that the language of Rule 702 requiring the expert to testify to scientific knowledge means that the expert's opinion must be based on the methods and procedures of science rather than on subjective belief or unsupported speculation; the expert must have good grounds for his or her belief. In sum, Daubert holds that an inquiry into the reliability of scientific evidence under Rule 702 requires a determination as to its scientific validity.

Id. at 742 (internal quotations and citations omitted).

Recognizing that the "inquiry as to whether a particular scientific technique or method is reliable is a flexible one," the Court of Appeals has identified a nonexhaustive list of eight

factors that courts may address in determining whether an expert's methodology is reliable.³ Id.; see also Heller v. Shaw Industries, Inc., 167 F.3d 146, 152 (3d Cir. 1999) (noting that the factors identified in Paoli serve as "useful guideposts, not dispositive hurdles that a party must overcome in order to have expert testimony admitted"); Kannankeril v. Terminix Intern., Inc., 128 F.3d 802, 806-07 (3d Cir. 1997) (noting that the Paoli factors are "neither exhaustive nor applicable in every case").

Finally, to be admissible under Rule 702, expert testimony must "fit," or be relevant to, the facts at issue in the case. Paoli, 35 F.3d at 743. "Because Rule 702 demands that the expert testimony assist the trier of fact, such testimony will be admissible only if the research is sufficiently connected to the facts and issues presented in a given case." Suter v. General Acc. Ins. Co. of America, 424 F. Supp. 2d 781, 787 (D.N.J. 2006)

³ The factors identified by the Court of Appeals for assessing the reliability of an expert's methodology are:

- (1) whether a method consists of a testable hypothesis;
- (2) whether the method has been subject to peer review;
- (3) the known or potential rate of error; (4) the existence and maintenance of standards controlling the technique's operation; (5) whether the method is generally accepted; (6) the relationship of the technique to methods which have been established to be reliable; (7) the qualifications of the expert witness testifying based on the methodology; and (8) the non-judicial uses to which the method has been put.

Paoli, 35 F.3d at 742, n.8.

(citing Paoli, 35 F.3d at 743). In other words, Rule 702's relevance standard requires that there be "a valid scientific connection" between the expert's testimony and the facts and issues in the case in order for the expert's testimony to be admissible. Paoli, 35 F.3d at 743.

As the Court of Appeals has made clear, the standard for admissibility under Rule 702 is "not that high." Id. at 745. Parties are not required to "prove their case twice - they do not have to demonstrate to the judge by a preponderance of the evidence that the assessments of their experts are correct, they only have to demonstrate by a preponderance of evidence that their opinions are reliable." Id. at 743.

1. Motion to Preclude Mr. Page's Testimony

Defendant seeks to preclude Mr. Page's testimony on two grounds, namely, that Mr. Page is not qualified to give the proposed testimony regarding reasonable alternative design, and further that his methodology, and consequently his opinion, is not reliable and does not fit the facts of the case. Presented as separate grounds, but relying on the same arguments, Defendant also maintains that Mr. Page's testimony should be excluded under Rule 703 for an absence of reliable data, and under Rule 403 as more prejudicial than probative. As will be further explained below, the Court concludes that Mr. Page is both sufficiently qualified to provide expert electrical engineering testimony and

that his opinion is sufficiently reliable to satisfy Rule 702 and Rule 703, and that this evidence is not unduly prejudicial under Rule 403 given its probative value.

(a) Qualifications

Defendant attacks Mr. Page's qualifications largely on the grounds that he is not an expert in milling machines and has insufficient experience regarding the design of battery compartments. Defendant points out that Mr. Page has not worked for a mobile construction company and suggests that he is not familiar with the range of designs within the milling machine industry. Finally, Defendant states that Mr. Page has not previously been qualified as an expert in the field of milling machines or battery explosions involving the design of electrical systems. The Court finds, however, that Defendant seeks to hold Mr. Page to a higher standard than is required by Rule 702 and this Circuit's jurisprudence.

Mr. Page is qualified as an expert in the field of electrical design and engineering. Mr. Page is an electrical engineer with over twenty years of experience, including three years working for Honeywell Avionics as a reliability, design, and safety engineer for a space shuttle and a submarine-launched ballistic missile. (Page Report at 44.) Since 1992, he has been Vice-President of Lluvia, Inc., performing electrical and forensic engineering and electrical product design and

manufacturing, along with litigation support. (Id.) He has provided expert support in litigation involving battery failure and explosion, power systems, both commercial and industrial, and risk assessment and risk reduction. (Id. at 45.) The Third Circuit employs a "liberal approach to admitting expert testimony." Holbrook v. Lykes Bros. S.S. Co., 80 F.3d 777, 782 (3d Cir. 1996). Thus, the Court may not preclude testimony "simply because [the Court] does not deem the proposed expert to be the best qualified or because the proposed expert does not have the specialization that the court considers most appropriate." Id. Construing Mr. Page's experience and education "liberally," his "generalized qualifications" satisfy the requirement of expertise for the purposes of this case -- examining the design of the battery compartment and offering an alternative design. See Paoli, 35 F.3d at 741.

(b) Reliability

Defendant argues that Mr. Page's report and expert opinion are not reliable because he has not tested his theories nor subjected them to peer review or publication, because he relies on a risk standard that did not exist when the milling machine was designed and manufactured in 1994, because there is no evidence that his theories are generally accepted in the scientific community, because his opinions were developed for this litigation, and because he did not investigate the cause of

the battery explosion. Despite this laundry list of alleged flaws, the Court finds that Mr. Page's proposed testimony is sufficiently reliable to satisfy Rule 702.

Mr. Page used a reliable methodology that produced a reliable opinion. Mr. Page used Mr. Thomas' deposition and photographs of the milling machine in question, along with the PR 800-7 Operations Manual (on which Defendant and Defendant's expert similarly rely) to determine the circumstances of the accident and the design of the subject milling machine. (Page Report at 7-11.) He reviewed the "well-known, long-standing, and recognized industry rules for the design and manufacture of all products" emphasizing health and safety, including the National Society of Professional Engineers ("NSPE"), the Institute of Electrical and Electronics Engineers ("IEEE Code of Ethics"), MIL-STD 882 ("the originator of the concept of system safety in the 1960s, and the progenitor of many system safety standards in use today"), and the ANSI B11.TR3-2000 ("a current standard that is widely used today"). (Id. at 15-16.)

Mr. Page took these general principles and applied them to the present case. Specifically, he applied the "generally accepted industry standards" for hazard analysis and risk reduction in product design and manufacture, the ANSI B11.TR3-2000. (Id. at 16-21.) Though formally introduced in 2000, Mr. Page notes that "the principles and rules set forth [in the ANSI

B11.TR3-2000] existed and were in use prior to the design and manufacturing of [the PR 800-7]" and further that "similar well-recognized rules for hazard analysis, risk assessment, and risk reduction" existed when the PR 800-7 was designed. (Id. at 21.) The methodology is straightforward, requiring the engineer to determine the limits of the machine (step one), identify the risk (step two), measure the severity of potential harm (based on the "worst credible severity") and the probability that harm will occur (steps three and four), and from these estimate the level of risk and look to the risk reduction hierarchy (step five). (Id. at 16-20.)

Following these steps, Mr. Page observed that the space within the milling machine is very limited for a person boosting batteries (step one), the hazard is injury resulting from a battery explosion while boosting (step two) and the worst possible harm from such an explosion would be "catastrophic,"⁴ meaning it could cause death or permanent disabling injury (step three). (Id. at 17-18.) Mr. Page stated that, despite the high level of a mechanic's training, the confined work space with no protective measures made the probability of occurrence of harm

⁴ Potential harm is ranked as "catastrophic" (death or permanently disabling injury or illness - unable to work), "serious" (severe debilitating injury or illness - able to return to work), "moderate" (significant injury or illness - able to return to same job), and "minor" (no injury or slight injury). (Page Report at 18).

"likely"⁵ (step four). (Id. at 19.) Taken together, Mr. Page found the risk estimation rating to be "high," making the risk "unacceptable" and requiring risk reduction.⁶ (Id. at 20.) Where, as here, a machine can be designed to avoid the high risk, industry standards do not permit the use of only warnings to protect against such risk. (Id. at 20-25.) This led Mr. Page to conclude that the PR 800-7 was defectively designed. (Id. at 31.)

Mr. Page concluded that a safer alternative design was available in the form of external charging terminals to be mounted on the exterior of the machine. (Id. at 33.) Mr. Page explained that by moving the charging terminals to the outside of the milling machine while a mechanic is actually charging the batteries, he is separated from them by heavy steel panels. (Id. at 20, 39-40.) He drew a simple schematic for the alternative

⁵ Probability of occurrence of harm is ranked as "very likely" (near certain to occur), "likely" (may occur), "unlikely" (not likely to occur), and "remote" (so unlikely as to be near zero). (Page Report at 19.)

⁶ At oral argument, defense counsel argued that Mr. Page's conclusion that the risk estimation for the PR 800-7 is high was baseless, because Mr. Page could not point to any prior or subsequent similar battery explosion and injury from the PR 800-7. Mr. Page did discuss, however, the recognized dangers associated with batteries and the likelihood of battery explosion (a fact acknowledged by defense experts Randall Bills and John Phillips) to support his conclusion regarding the degree of the risk. (Page Report at 12-14.) While the overall successful history of the PR 800-7 certainly may provide an excellent tool for cross-examination, it does not preclude admission of Mr. Page's testimony.

design and found a similar machine (though smaller), the Case 465 Skid Steer Series 3 mini front-loader, that uses such a design -- a design made from parts that were available and technically feasible in the 1980s and early 1990s when Defendant designed and manufactured the PR 800-7. (Id. at 33-39.) Mr. Page purchased the parts and constructed a prototype for this design. (Id. at 33-37.) Finally, Mr. Page concluded that had Defendant adopted his alternative design, Mr. Thomas would not have been injured. (Id. at 39-40.)

Defendant argues that Mr. Page's opinion is not reliable because it fails to meet certain of the factors listed in Daubert. The Court rejects these arguments, as they ask the Court to rigidly apply the Daubert factors where rigid application is not appropriate. Defendant maintains that Mr. Page should have tested his alternative design and should have tested the milling machine batteries to determine the cause of their explosion.⁷ Mr. Page explained, and the Court agrees, that

⁷ Defendant also criticizes Mr. Page for not using the milling machine itself. Mr. Page viewed detailed pictures of the milling machine and read Mr. Thomas' deposition describing the machine and the accident. While Defendant is free to cross-examine Mr. Page regarding his first-hand knowledge of the machine, his methodology is sufficiently reliable to satisfy the Court in its function as gatekeeper. Nor will the Court require Mr. Page to speak in person with Mr. Thomas, the other witnesses or emergency personnel who arrived at the scene. The Court's role is not to decide whether Mr. Page was as thorough as he could possibly have been, but instead to determine whether he meets the threshold requirements of Rule 702. See Oddi v. Ford Motor Co., 234 F.3d 136, 156 (3d Cir. 2000) ("The [reliability] test is not

the cause of the batteries' explosion is immaterial to Mr. Page's opinion. (Page Dep. at 135-36.) Mr. Page and Plaintiffs agree with Defendant that the exploding batteries were a cause of the accident. In fact, central to Plaintiffs' argument is that these lead-acid batteries are prone to explode, and so a machine using them should be designed to limit the danger of injury from such an explosion, regardless of the cause of the explosion. (Page Dep. at 135-36; Page Report at 12-15.) It was not necessary for Mr. Page to determine through testing or any other means why the batteries exploded.

Nor was Mr. Page required to test the alternative safer design, not one created by Mr. Page but one already in use on a similar (if smaller) piece of machinery, providing sufficient reliable proof that this alternative design (extremely simple, to the point of needing very little explanation) was feasible and effective. See Lindsey v. Caterpillar, Inc., No. 03-5762, 2007 WL 1816105, at *4-5 (D.N.J. June 22, 2007) (finding use of expert's proposed alternative design in similar product was an indicia of reliability without testing of alternative design); Milanowicz v. The Raymond Corp., 148 F. Supp. 2d 525, 533 (D.N.J. 2001) ("In alternative design cases, evidence of industry practice may help negate criticism based on lack of testing.").

'[w]hether the ... expert might have done a better job.'") (quoting Kannankeril, 128 F.3d at 809).

Mr. Page further explained how the external terminals would connect to the PR 800-7, illustrating and explaining his conclusions with photographs of the actual machine and the actual alternative device, as well as his own diagram. (Page Report at 33-39.) Moreover, Defendant's own designer and the designer of the PR 800-7 testified that there was no technical reason why an external charging terminal could not be included on the PR 800-7.⁸ (Phillips Dep. at 164.) Finally, Mr. Page explained that the heavy metal plates between the mechanic and the batteries while the batteries are charging would protect the mechanic, a theory not requiring testing and supported by Mr. Phillips' own testimony (" . . . if you cause a spark there at your remote terminal and your batteries, discharged batteries are way over here, obviously you're going to be okay"). (Page Report at 20; Phillips Dep. at 166-67.) Mr. Page's expert opinion is not inadmissible for failure to test his proposed alternative design.

The Court will quickly address Defendant's remaining arguments. Mr. Page's failure to submit his risk analysis and

⁸ Defendant points out that Mr. Phillips also submitted a report for this litigation, in which he states that Mr. Page's alternative design is "not acceptable" because it "requires more components, creates more points of contact for maintenance workers, and results in more potential problems for those working in and around the machine." (Phillips Report at 3.) It is unclear whether the "problems" Mr. Phillips is concerned about are equal in degree to the risk of severe bodily injury resulting from being in close quarters to an exploding battery. Regardless, mere disagreement between two qualified experts must be resolved by a jury and not the Court.

alternative design for the PR 800-7 battery boosting system for publication or peer review does not prevent admission of his expert testimony, where he used well-recognized (and straightforward) risk analysis tools and adopted an alternative design already used in the industry. See Kannankeril, 128 F.3d at 809 (peer review and publication not necessary under Rule 702 where expert does not present “novel” theory, but instead one generally accepted by the scientific community). Mr. Page’s use of a specific risk analysis standard published in 2000, after the PR 800-7 was designed and manufactured, does not undermine his methodology, for Mr. Page explains at great length that the ANSI B11.TR3-2000 reflects a long-established and widely used process for hazard analysis (and one that Mr. Phillips, Defendant’s engineer, was familiar with), and so connected these engineering standards to the facts of the case.⁹ (Page Report at 21-32.)

The Court also rejects Defendant’s suggestion that Mr. Page’s “theories” are not generally accepted by the scientific community, for his method of analysis uses well-recognized engineering standards and his alternative design is already at

⁹ Defendant cannot rely on Milanowicz, for in Milanowicz, the excluded expert merely listed engineering standards, but failed to apply them to the facts of the case (and further those standards did not support the expert’s conclusion). 148 F. Supp. 2d at 537-38. Mr. Page, by contrast, thoroughly applied and analyzed relevant engineering standards for risk analysis, and those standards support his ultimate conclusion that the PR 800-7 was defectively designed.

use in the industry. Finally the mere fact that Mr. Page prepared his report for this litigation (just as Defendant's expert, Mr. Bills, prepared his expert report purely for this litigation), does not undermine his otherwise reliable proposed testimony. Both his method of analysis and his proposed alternative design preexisted this litigation.

(c) Relevance

In light of the above analysis, Mr. Page's testimony should not be excluded for lack of "fit." In this design defect case, Mr. Page's report reviewed the PR 800-7 using recognized engineering standards and found it both defective and subject to an alternative safer design, using reliable methods and based on his adequate expertise.¹⁰ Mr. Page's proposed testimony is relevant to the task at hand.

(d) Admissibility Under Rules 703 and 403

Defendant argues that Mr. Page's testimony should be excluded under Rule 703 because of an absence of reliable data to

¹⁰ The fact that Mr. Thomas could have removed the batteries from the milling machine before charging them, possibly reducing the allegedly dangerous design of the milling machine, does not make Mr. Page's testimony irrelevant. The PR 800-7 Operation Manual instructions do not suggest that batteries should be removed from the machine before charging, and rather the instructions suggest to the contrary (instructing the mechanic to "connect positive jumper cable (red) to positive cable terminal of discharged battery set on stalled machine"). (Operations Manual at 7.) No one suggests that it is the common or expected practice of mechanics to remove batteries before recharging them. At best, this raises an issue of Mr. Thomas' foreseeable misuse of the machine, to be decided by the jury.

support his opinion. The Court finds that Mr. Page appropriately relied on photographs of the subject machine and detailed descriptions of the incident (as well as the machine itself), along with evidence of the feasibility of his alternative design as it operates on the Case machine, to justify admission under Rule 703. Defendant also asks the Court to preclude Mr. Page's opinion as more prejudicial than probative under Rule 403, but because the Court has found Mr. Page's opinion to be sufficiently reliable and of a suitable fit to the facts of the case, the Court likewise declines to exclude Mr. Page's opinion under Rule 403.

2. Motion to Preclude Dr. Hewitt's Testimony

Defendant moves the Court to preclude Dr. Hewitt's proposed testimony that Mr. Page suffers from a brain injury and that his injury is to four or five parts of Mr. Thomas' brain because there are no neurological tests to support his opinions and further that all neurological tests that were performed on Mr. Thomas contradict his opinion, either by suggesting that Mr. Thomas is malingering regarding his symptoms or suggesting that Mr. Thomas' symptoms are not the result of a brain injury. Given the absence of testing, Defendant argues, Dr. Hewitt did not employ any methodology to support his conclusions. Defendant maintains that Dr. Hewitt's testimony should be precluded because it is inconsistent with the medical opinions of all other doctors

to examine Mr. Thomas.

In addition, Defendant asks the Court to preclude Dr. Hewitt's proposed testimony regarding the source of Mr. Thomas' purported brain injury, namely the August, 2005 milling machine accident, and the biomechanics of that injury, because Dr. Hewitt does not have sufficient expertise to testify on this subject and has not employed a reliable methodology to come to this conclusion. For similar reasons, Defendant also seeks to preclude Dr. Hewitt's testimony under Rules 703 and 403. While the Court declines to preclude Dr. Hewitt's testimony that Mr. Thomas suffers from psychiatric disorders caused by a head injury and that these disorders likely resulted from the August, 2005 milling machine accident, the Court will preclude Dr. Hewitt's testimony regarding the nature and biomechanics of this alleged injury.

(a) Testimony that Mr. Thomas Suffers from a Head Injury

The essence of Defendant's argument is that Dr. Hewitt's entire opinion is unreliable because it is not specifically supported by neurological tests and is contradicted by some neurological tests and the opinions of other doctors. Dr. Hewitt did, however, employ sufficiently reliable methodology to support his medical opinion, to a reasonable degree of certainty, that Mr. Thomas suffers from cognitive disorder and mood disorder secondary to a head injury in the context of this case, where

there is no dispute that Mr. Thomas was within the zone of impact of a serious battery explosion. Dr. Hewitt engaged in what is commonly referred to as "differential diagnosis,"

"a methodology or technique commonly used by . . . medical professionals in diagnosing an illness or medical condition and determining its cause." Yarchak v. Trek Bicycle Corp., 208 F.

Supp. 2d 470, 497 (D.N.J. 2002). The Third Circuit has

recognized "differential diagnosis" as a technique that involves assessing causation with respect to a particular individual. Paoli, 35 F.3d at 758. Differential diagnosis is defined for physicians as "the determination of which of two or more diseases with similar symptoms is the one from which the patient is suffering, by a systematic comparison and contrasting of the clinical findings." STEDMAN'S MEDICAL DICTIONARY 428 (25th ed. 1990). The elements of a differential diagnosis may consist of the performance of physical examinations, the taking of medical histories, and the review of clinical tests, including laboratory tests. A doctor does not have to employ all of these techniques in order for the doctor's diagnosis to be reliable. See Paoli, 35 F.3d at 759. A differential diagnosis may be reliable with less than all the types of information set out above. See id. Indeed, as [the Third Circuit] held in Paoli, "to the extent that the district court concluded otherwise [i.e., that a differential diagnosis made on less than all types of information cannot be reliable], we hold that it abused its discretion." Id.

Kannankeril, 128 F.3d at 807.

In the present case, Dr. Hewitt based his opinion that Mr. Thomas suffers from symptoms related to a brain injury on Dr. Hewitt's own clinical evaluation of Mr. Thomas during approximately 37 visits over a period of over three years, guided

by his previous experience with patients suffering from head injuries, his own research into neurophysiology and neuroanatomy, and guided by the widely recognized diagnostic tools in the DSM IV. Dr. Hewitt further ruled out the two most probable alternative explanations for Mr. Thomas' medical difficulties -- a pre-existing psychological or neurological condition or malingering. With regards to a pre-existing condition, Dr. Hewitt explained: "In my meetings with Mr. Thomas, it became clear to me that there was evidence of a traumatic brain injury based on my experience with other individuals with traumatic brain injuries¹¹ and my work with children whose deficits are not a function of brain injury but rather brain disfunction which is a result of genetic abnormality." (Hewitt Report at 6.) He then listed and described Mr. Thomas' symptoms consistent with traumatic brain injury (including speech disfluency, loss of taste, difficulty collecting his thoughts, loss of visual memory, and headaches), noting particular symptoms that are inconsistent with psychological disorders (inability to filter out background

¹¹ Dr. Hewitt testified in his deposition that the bulk of his treatment practice involves treating injured workers who suffer from Post Traumatic Stress Disorder, chronic pain disorder, and head injuries. (Hewitt Dep. at 25.) Of those, Dr. Hewitt has treated five to ten patients since September, 2005 who suffered from head injuries due specifically to explosions. (Id. at 28.) Dr. Hewitt has been recognized as an expert for the purpose of distinguishing psychiatric disorders from traumatic brain injuries in the New Jersey Superior Court and Workers' Compensation Court. (Id. at 18-20.)

noise to focus on a primary conversation and Mr. Thomas' complaints of increased pressure in his head along with nausea and vomiting). (Id. at 6-13.) While Dr. Hewitt recognized that certain symptoms (in particular, anhedonia, an inability to enjoy things) could be caused by psychological disorder rather than organic brain injury, (id. at 6, 8), Dr. Hewitt was able to ultimately conclude to a reasonable degree of medical probability that Mr. Thomas has the DSM IV diagnoses of cognitive disorder secondary to head injury, mood disorder secondary to head injury, anxiety disorder (not otherwise specified), and post traumatic stress disorder in remission. (Id. at 16.)

Dr. Hewitt also addressed the possibility that Mr. Thomas is fabricating or exaggerating his symptoms, by directly responding to the opinions of Dr. McGowan and Dr. Mahalick, both neurologists who concluded that Mr. Thomas was malingering. (Id. at 4-5, 13.) Dr. Hewitt agreed with Dr. McGowan that there are "contradictions" with Dr. McGowan's neurological test results, but explained these contradictions not as evidence of malingering, but instead as a reflection of Mr. Thomas' personality and the symptoms consistent with a brain injury. (Id. at 4.) Dr. Hewitt also pointed to a neuropsychiatric evaluation by a Dr. Tobe, who similarly disagreed with Dr. McGowan's conclusion that Mr. Thomas was malingering and diagnosed him with mood disorder and cognitive disorder secondary

to a brain injury. (Id. at 5.) Dr. Hewitt similarly addressed and disagreed with Dr. Mahalick's testing methods as described by Mr. Thomas (though Dr. Hewitt did not have Dr. Mahalick's report when Dr. Hewitt was preparing his own report), criticizing Dr. Mahalick's treatment of Mr. Thomas, his use of a second round of testing soon after the first round (without giving Mr. Thomas time to recover), and finding Mr. Thomas' difficulties during testing to reflect "Mr. Thomas' slow processing speed and how his deliberate nature reflects his embarrassment over making mistakes and his wish to avoid mistakes." (Id. at 13.) Dr. Hewitt thereby ruled out the possibility of malingering.

The Court declines to exclude Dr. Hewitt's testimony regarding Mr. Thomas' psychiatric conditions secondary to a head injury based on a lack of objective neurological testing to support his opinion (or the inconsistent neurological testing). Dr. Hewitt did refer Mr. Thomas to Dr. McGowan, neuropsychologist, for neurological testing, and while Dr. McGowan dismissed those results as unreliable due to malingering, Dr. Hewitt disagreed with Dr. McGowan's conclusions of malingering and found the results of the Block Design test to be consistent with brain injury. (Id. at 4.) Dr. Hewitt noted that a CT scan performed at Cooper Trauma Center immediately after the accident, as well as a later EEG and MRI did not indicate brain abnormalities. (Hewitt Report at 1-2.) Dr. Hewitt explained

that a "CT scan of the head at that time would be looking for gross abnormalities . . . [and] would not prove or disprove more subtle damage caused by the force of the explosion." (Id. at 2.) Defendant acknowledges that these tests "will not always detect a traumatic brain injury." (Defs. Reply Br. at 5.) In Kannankeril, the Third Circuit concluded that test results inconsistent with an expert's differential diagnosis raise "an issue of credibility, not admissibility." 128 F.3d at 808. Similarly, here, "[i]t is for the jury to decide whether" the above neurological tests "yielding results within normal limits, outweighs the other factors relied upon by [Dr. Hewitt] and undermines his opinion." Id.

Likewise, the Court cannot exclude Dr. Hewitt's opinion because it is not adopted by numerous other doctors, neuropsychologists and others, who have examined and tested Dr. Hewitt. Like the allegedly contradictory testing, contradictory medical opinions go to the weight a jury may give Dr. Hewitt's opinion, not whether the Court should admit his testimony. In other words, the Plaintiff does not have the burden in this motion to demonstrate that Dr. Hewitt's opinion about the nature of his mental or emotional injuries is correct, but that it is sufficiently reliable, fit and helpful that a reasonable jury may find it to be correct. The Court will therefore decline to preclude Dr. Hewitt's testimony that Mr. Thomas suffers from a

cognitive disorder and a mood disorder secondary to a traumatic brain injury, for his method is sufficiently reliable to satisfy Rule 702.¹²

**(b) Testimony that Mr. Thomas' Brain Injury was
Caused by the August 2nd Milling Machine
Accident**

Defendant seeks to preclude Dr. Hewitt's opinion that Mr. Thomas' brain injury results from the August 2nd milling machine accident on the grounds that Dr. Hewitt is not qualified to offer opinions in the fields of accident reconstruction and/or biomechanics and that the absence of evidence of a physical injury to Mr. Thomas' head renders Dr. Hewitt's opinion unreliable. The Court finds that Dr. Hewitt could reliably conclude, based on the temporal proximity between accident and Mr. Thomas' stated symptoms, that Mr. Thomas' brain injury resulted from the accident. However, as will be addressed below, the Court agrees with Defendant that Dr. Hewitt may not opine regarding the biomechanics of that neurological injury, for he

¹² The Court will similarly decline to preclude Dr. Hewitt's opinion that Mr. Thomas suffers from cognitive disorders secondary to a traumatic brain injury from the August 2nd milling machine accident under Rule 703, for absence of reliable data, or Rule 403, as unreasonably prejudicial, for Dr. Hewitt's opinion was based on both reliable methodology and clinical evaluations making it of assistance to the jury in the defective design litigation. As a psychiatrist with extensive experience in treatment of brain-injured patients, Dr. Hewitt may reasonably interpret the factual data bearing upon these issues, including his own observations of Plaintiff in almost 40 sessions over an extended period of time.

has not identified any methodology to support this conclusion, nor does he tie his biomechanical opinion to physiological facts revealed by the anatomical tests performed.

The question of causation can be resolved by a doctor without even medical testing, where the temporal proximity between an accident and the subsequent injury make the accident the most probable cause of the injury. See Matlin v. Langkow, 65 F. App'x 373, 383-84 (3d Cir. 2003); see also Kannankeril, 128 F.3d at 809 (district court abused its discretion by excluding opinion "[t]he temporal relationship and the nature of her complaints lead me to conclude that with reasonable medical certainty, the cause of [the plaintiff's] Central Nervous System manifestations of toxicity is exposure to Dursban in 1989 to 1990,'""); Paoli, 35 F.3d at 759-60. Dr. Hewitt began treating Mr. Thomas approximately a month after the August 2, 2005 milling machine accident and Mr. Thomas reported that his symptoms arose immediately after the accident. Under such circumstances, Dr. Hewitt could reliably conclude that his traumatic brain injury arose as a result of the accident. The Third Circuit in Paoli provided a similar example:

To provide a simplistic example, imagine a patient who comes in with medical records that include x-rays showing a fractured arm and who tells the doctor that he hurt the arm in a biking accident; the doctor could reliably conclude that the patient had a fractured arm caused by a biking accident even without physically examining the patient or taking a medical history. The biking accident is

so much more likely to have been the cause of the fracture than anything else that there is no need to examine alternatives.

Paoli, 35 F.3d at 759-60. Having reliably concluded that Mr. Thomas suffers from cognitive disorders resulting from a head injury, and having found that those symptoms arose after an accident that left Mr. Thomas with "an injury to his left wrist, acid or heat burns to his face, contusions to the back of his head, and altered mental status as well as the inability to hear," (Hewitt Report at 1), Dr. Hewitt can reliably opine this Mr. Thomas incurred his brain injury from the milling accident. In other words, Dr. Hewitt's opinion that the battery explosion caused the cognitive and emotional disorders from which Mr. Thomas suffers is admissible.

(c) Testimony Regarding the Nature of Mr. Thomas' Injury and the Biomechanics of the Injury

Dr. Hewitt may not, however, testify on direct examination as to the physical, biomechanical nature of the neurological injury. Dr. Hewitt does not explain in his report, but testified in his deposition, that Mr. Thomas' brain was injured by the force of the blast leading to a "jostling of the brain" called a "contracoup," leading to injuries in four, and possibly five, specific areas of the brain. (Hewitt Dep. at 74.) Dr. Hewitt described his hypothesis regarding Mr. Thomas' organic brain injuries as follows:

It's my opinion that there has been damage to the

pre-frontal area of the brain and to that part of the brain that manages auditory processing in the sense of speaking, hearing and thinking in words. I think that there's been damage to the part of the brain that manages perceptions of smell and taste. I think that there has been damage to the occipital nerve either as it exists the back of the skull or inside the skull. And there may be white matter damage, but that's an area that research is only beginning to address.

(Id. at 66.) These injuries were caused, according to Dr.

Hewitt, by the force of the explosion:

[] I don't have any way of saying with certainty. I have opinions and I think that there's medical probability to my opinions that there's a combination of concussion, the blast itself forcing the brain against, to go harshly against the inside of the skull and that that caused the damage. How much was caused by this bump on the back of his head I'm less impressed and have less information that's - if the contact was at the back of his head it would have been because the contact here forced the brain forward and because it's here, that would force the brain to go up against the skull here. And that could be one explanation of the damage to this part of the brain. One could also postulate that it was the concussion blast itself damaging the left pre-frontal.

(Id. at 74-75.) Unlike Dr. Hewitt's methodical analysis of Mr. Thomas' various cognitive systems in order to conclude that they arise from a head injury, Dr. Hewitt offers no methodology to support what appears to be speculation regarding the nature and mechanics of that injury. Dr. Hewitt admits that he is not a biomechanic and has not performed a biomechanical analysis of the discrete mechanism of injury in this matter. (Id. at 31, 42.) Nor is Dr. Hewitt a neurologist and he has not performed any

neurological testing (or any testing of any kind) regarding the physical nature of Mr. Thomas' alleged brain injuries. (Id. at 26-27, 66-70.) In the absence of any methodology, the Court has no way of measuring the reliability of Dr. Hewitt's opinions regarding the psychical happening and biomechanics of the alleged organic brain injury and so such testimony must be barred under Rule 702.

3. Motion to Preclude Mr. Bills' Testimony

Plaintiffs seek to preclude the proposed expert testimony of Mr. Bills, Defendant's engineering expert. Plaintiffs maintain that Mr. Bills' testimony that Mr. Thomas, and not the design of the PR 800-7, caused the battery explosion, is inadmissible because it is both irrelevant and unreliable.¹³ The Court finds, and will explain below, that Mr. Bills' proposed testimony is both reliable and relevant and therefore admissible under Rule 702.

The parties agree that in this strict liability design defect litigation, Mr. Thomas' conduct while using the allegedly defectively designed milling machine is only relevant insofar as it shows that his conduct was the sole proximate cause of the

¹³ Many of Plaintiffs' objections are founded on the assumption that Defendant has proffered Mr. Bills as an expert regarding design defect and the cause of Mr. Thomas' injuries. Because it was clarified during oral argument that Mr. Bills will testify only regarding the cause of the battery explosion and will not testify regarding any design defect or the cause of Mr. Thomas' injuries, the Court need not address these arguments.

accident, where there is no suggestion that Mr. Thomas' use of the milling machine was not foreseeable. See Johansen v. Makita U.S.A., Inc., 607 A.2d 637, 641-42, 644-646 (N.J. 1992); Ebenhoech v. Koppers Industries, Inc., 239 F. Supp. 2d 455, 460-70 (D.N.J. 2002). Both parties initially engaged in what appears to be an argument regarding semantics, with Plaintiffs maintaining the Mr. Bills has opined only that Mr. Thomas' conduct was only one cause of the accident (making his opinion irrelevant), while Defendant insisted that Mr. Bills found plaintiff's conduct to be the sole cause of the accident. During his testimony before this Court, Mr. Bills made plain that it was his opinion that Mr. Thomas' conduct was the sole cause of the battery explosion, and thus it is this opinion, its reliability and its relevance, that the Court must consider.

Mr. Bills explained his opinion initially in his written report, stating:

Based upon all information reviewed to date, it is the opinion of **SEA, Ltd. that the actions of Mr. Thomas caused this battery explosion to occur.** This battery explosion occurred as a result of Mr. Thomas wiggling the negative clamp from the Start All that was connected to a tank bolt on the milling machine, while the Start All was running and charging the batteries. The wiggling of the clamp caused a break in the electrical charging circuit that resulted in a large spark, which ignited hydrogen gas in the area of the batteries and the subsequent explosion of one of the batteries. **The design of the battery compartment and battery cables was not defective and did not cause this explosion to occur.** Mr. Thomas did not heed the warnings on the batteries, he did not use

proper battery jumping techniques, and he did not follow the manufacturer's warnings and procedures. **If Mr. Thomas had followed proper battery jumping techniques, this accident could have been prevented.**

(Bills Report at 17) (emphasis in original). In testimony, Mr. Bills elaborated both on his substantial experience in this field (Plaintiffs do not challenge his expertise) and his methodology at coming to the above conclusion. Mr. Bills testified that he applied the standard scientific methodology outlined in NFPA 921 to rule out each possible cause of the battery explosion (electrical malfunction, Start-All malfunction, battery malfunction, storage compartment malfunction) and ultimately reach the opinion that Mr. Thomas' own conduct was the sole cause of the explosion. Mr. Bills applied this methodology to his review of all significant documentation of the accident, especially the depositions of Mr. Thomas and other witnesses, as well as his own inspection of the milling machine.

First, Mr. Bills explained that the explosion was not the result of an electrical malfunction, because the evidence showed that following the accident only the batteries needed to be replaced in order to restore the machine to working condition. Second, Mr. Bills explained that the Start-All did not malfunction because it similarly required no repairs. Third, Mr. Bills concluded that the batteries themselves did not malfunction and cause the explosion, because had there been an internal

failure, Mr. Thomas would not have seen a spark -- rather, there would have just been an explosion. Fourth, based on his examination of the storage compartment and photographs taken after the accident, Mr. Bills concluded that there was no anomaly in the battery storage compartment and no source of ignition from the compartment that would have caused the accident. Finally, Mr. Bills considered Mr. Thomas' own testimony regarding the wiggling of the clamps, the spark, and the subsequent explosion, and concluded that this conduct alone caused the battery explosion at issue here.

The Court finds that Mr. Bills' stated methodology and significant expertise in the specific field of forensic analysis of battery explosions produced a sufficiently reliable opinion to satisfy Rule 702. In addition, the Court finds the report to be relevant. While it may not be all that is required of Defendant to prove that only Mr. Thomas, and not any defect in the design of the milling machine, caused the injuries Mr. Thomas suffered, it is certainly a necessary building block to establish such a fact. Mr. Bills' examination of other possible causes and his opinion ruling out such other causes are also highly relevant to the issue of sole causation. The cause of the battery explosion is relevant to Mr. Thomas' design defect claim arising out of injuries sustained following this explosion and the Court will not preclude Mr. Bills' proposed testimony as to this issue.

C. Motions for Summary Judgment

Defendant has moved for summary judgment on all of Plaintiffs' claims, while Plaintiffs seek partial summary judgment solely on the issue of a reasonable safer design. Summary judgment is only appropriate when the materials of record "show that there is no genuine issue as to any material fact and that the moving party is entitled to judgement as a matter of law." Fed. R. Civ. P. 56(c). In deciding whether there is a disputed issue of material fact, a court must view the evidence in favor of the non-moving party by extending any reasonable favorable inference to that party; in other words, "the nonmoving party's evidence 'is to be believed, and all justifiable inferences are to be drawn in [that party's] favor.'" Hunt v. Cromartie, 526 U.S. 541, 552 (1999) (quoting Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986)). "[T]he judge's function is not himself to weigh the evidence and determine the truth of the matter but to determine whether there is a genuine issue for trial." Anderson, 477 U.S. at 249. As now discussed, there are presently material facts in dispute which preclude summary judgment on Plaintiffs' design defect claim.¹⁴

¹⁴ Defendant also seeks summary judgment on Plaintiffs' failure-to-warn claim. Because Plaintiffs have agreed to dismiss this claim, the Court will grant Defendant's motion for partial summary judgment on this issue alone.

1. Defendant's Motion for Summary Judgment

Defendant maintains that Plaintiffs have failed to submit any evidence from which a reasonable factfinder could conclude that a defect exists in the design of the PR 800-7 so that this claim must fail. As a consequence, Defendant argues, Mrs. Thomas' derivative claim for loss of consortium must fail. The Court disagrees with Defendant. Plaintiffs have presented evidence, in the form of Mr. Page's expert report and Mr. Phillips' testimony during deposition, that the design of the battery compartment (its small size) and the proximity of the charging terminals to the batteries caused Mr. Thomas' injuries because Mr. Thomas was not protected from the explosion. It matters not whether Mr. Thomas was injured by striking the milling machine (though there is some evidence from which a reasonable jury could conclude that Mr. Thomas struck his head on the machine) or whether the batteries exploded because of the design of the machine, because Mr. Page has opined that the danger comes from the design of the charging mechanism such that Mr. Thomas would be in close proximity to the batteries while the batteries were charging. (Page Report at 17-20.) While it is true, as Defendant points out, that Mr. Page's design would not prevent Mr. Thomas from checking the connection of the charging cables, under the new design, if Mr. Thomas checked the connection of the charging cables those cables would be attached

to an external terminal, far from the batteries at the charging terminals, so any spark would occur outside the battery compartment and battery explosion would occur behind heavy metal plates.¹⁵ From this, a reasonable jury could conclude that any defect in the design of the machine caused the injuries that Mr. Thomas suffered from the explosion.

Therefore, the Court will decline to grant summary judgment on Mr. Thomas' claims of design defect. Having declined to grant summary judgment on Mr. Thomas' design defect claim, the Court will similarly decline to dismiss Mrs. Thomas' claims solely on the grounds that they are derivative.

2. Plaintiffs' Motions for Partial Summary Judgment

Plaintiffs seek partial summary judgment on the issue of a reasonable safer design theory, arguing that Defendant's engineer and designer of the PR 800-7 has admitted that a reasonable safer alternative design exists and existed at the time of the design of the PR 800-7. While it is true that Mr. Phillips testified that external charging terminals were technically feasible, (Phillips Dep. at 164), and further that a spark at a remote terminal would not endanger a mechanic, (id. at 166-67), Mr.

¹⁵ That a mechanic will still have to check the actual batteries before charging, or that in certain circumstances it may become necessary for a mechanic to come close to the batteries while actually charging the batteries, does not mean that under the circumstances of this case, Mr. Page's design is not a safer alternative that would have prevented Mr. Thomas' injury. It need not eliminate all potential risks to be safer.

Phillips generally objected to the conclusion that his design was unreasonably dangerous, (id. at 175-76):

Q. In doing a hazard analysis, whether you do it formally or informally, did you perceive any potential hazard concerning the battery compartment, batteries or charging the batteries?

. . .
A. Well, I guess - I realize that there could be - there was a hazard there because I can read it. I mean, it's on every battery.

. . .
And so, sure, you give it consideration. But I believe we did address the problem. I mean, I addressed the problem in design.

Q. Okay. That's the next step. What - how did you intend to address the hazard you just identified, or just spoke about?

A. Well, we have to have access to the batteries if they're down and you need to charge them. So you can't really lock the terminals under some plate and hook up cables to them. I mean, so you cant' - I don't think you can design it by - out. You can't design that hazard out. You've got to have them, you've got to have them charged. They've got to be accessible.

Okay. So then on the battery, it warns against - we use batteries that have a warning on them. And so you warn - it's warned against. And then we put it in our manuals. We give a procedure that's accepted worldwide for boosting a battery set or charging the batteries.

(Phillips Dep. at 175-76.) Mr. Phillips also submitted a report in which he challenged, however obliquely, the overall safety of Mr. Page's proposed alternative design, stating that it "requires more components, creates more points of contact for maintenance workers, and results in more potential problems for those working in and around the machine." (Phillips Report at 3.) Taken

together with Mr. Bills' challenge to the feasibility of Mr. Page's alternative design, the Court must conclude that the reasonableness and the safety of Mr. Page's alternative design are in dispute and summary judgment is not warranted on this issue.

III. CONCLUSION

For the foregoing reasons, the Court will deny in full Defendant's motion to preclude the expert testimony of Mr. Page. The Court will grant in part and deny in part Defendant's motion to preclude the expert testimony of Dr. Hewitt. The Court will preclude Dr. Hewitt from testifying regarding the physical characteristics and biomechanism of Mr. Thomas' alleged brain injury, but Dr. Hewitt may offer testimony regarding Mr. Thomas' alleged cognitive disorders and emotional deficits secondary to a head injury arising out of the August, 2005 accident. The Court will deny Plaintiffs' motion to preclude Mr. Bills' testimony. Finally, the Court will deny both Plaintiffs' motion for partial summary judgment and Defendant's motion for summary judgment as to Plaintiffs' design defect claim, but will grant summary judgment to Defendant on Plaintiffs' failure-to-warn claim, as conceded by Plaintiffs.

The accompanying Order shall be entered.

September 21, 2009

Date

s/ Jerome B. Simandle

JEROME B. SIMANDLE

United States District Judge